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(54) Title: IP MOBILITY MECHANISM FOR A PACKET RADIO NETWORK
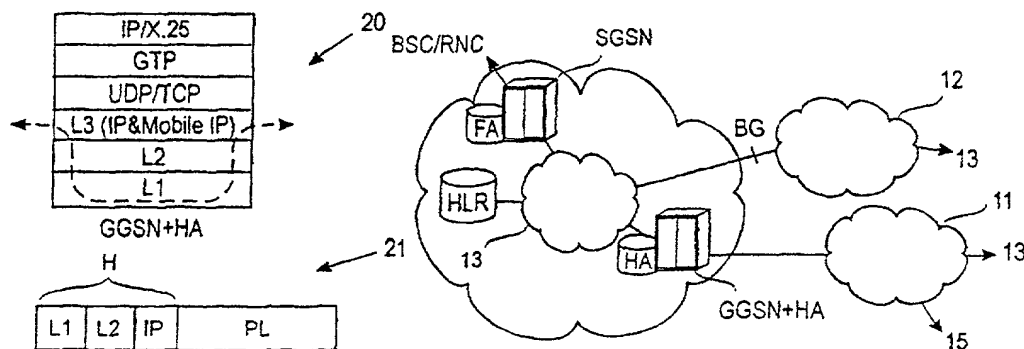
(57) Abstract

A gateway support node (GGSN+HA) for a packet radio network, arranged to provide Internet Protocol, or IP, mobility for a mobile station (MS). The gateway support node (GGSN+HA) is interoperable with at least one home agent (HA) and at least one serving support node (SGSN), for routing data packets to/from the mobile station (MS). It comprises a protocol stack (18, 20) for supporting at least a layer 1 (L1) protocol, a layer 2 (L2) protocol, and a network layer (L3) protocol, the network layer (L3) protocol supporting at least IP protocol. It also comprises the functions of the home agent (HA) and it is arranged to support Mobile IP protocol on the network layer (L3). Preferably, the protocol stack (20) is streamlined by routing data packets to/from the integrated home agent/gateway node (GGSN+HA) using only the network layer (L3) protocol and the layer 2 and layer 1 protocols.